



Tecton
ARCHITECTS

PACHECO ROSS ARCHITECTS
CES
FUSS & O'NEILL
ODEH ENGINEERS
RLB

LEXINGTON POLICE HEADQUARTERS

WHERE WE HAVE BEEN

Previous meeting accomplishments:

- Consensus on Program
 - Previous building area as of Dec. 2019: 34,791 s.f.
 - All new proposed design area as of Feb. 2020: 29,625 s.f.
 - Approved design area as of Aug. 2020: 30,081 s.f.
- Consensus on budget goal
- Consensus on All New Construction
- Consensus on General Floor and Site Plan organization

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WHERE WE ARE NOW

Completion of Schematic Design:

- Finalized development of floor plans with PD
- Development of exterior elevations with input from PBC, DAC and HDC
- Site grading, drainage and landscape design is underway.
- Structural foundation and framing plans developed.
- HVAC system selected and major equipment is located.
- Primary electrical service equipment is located.

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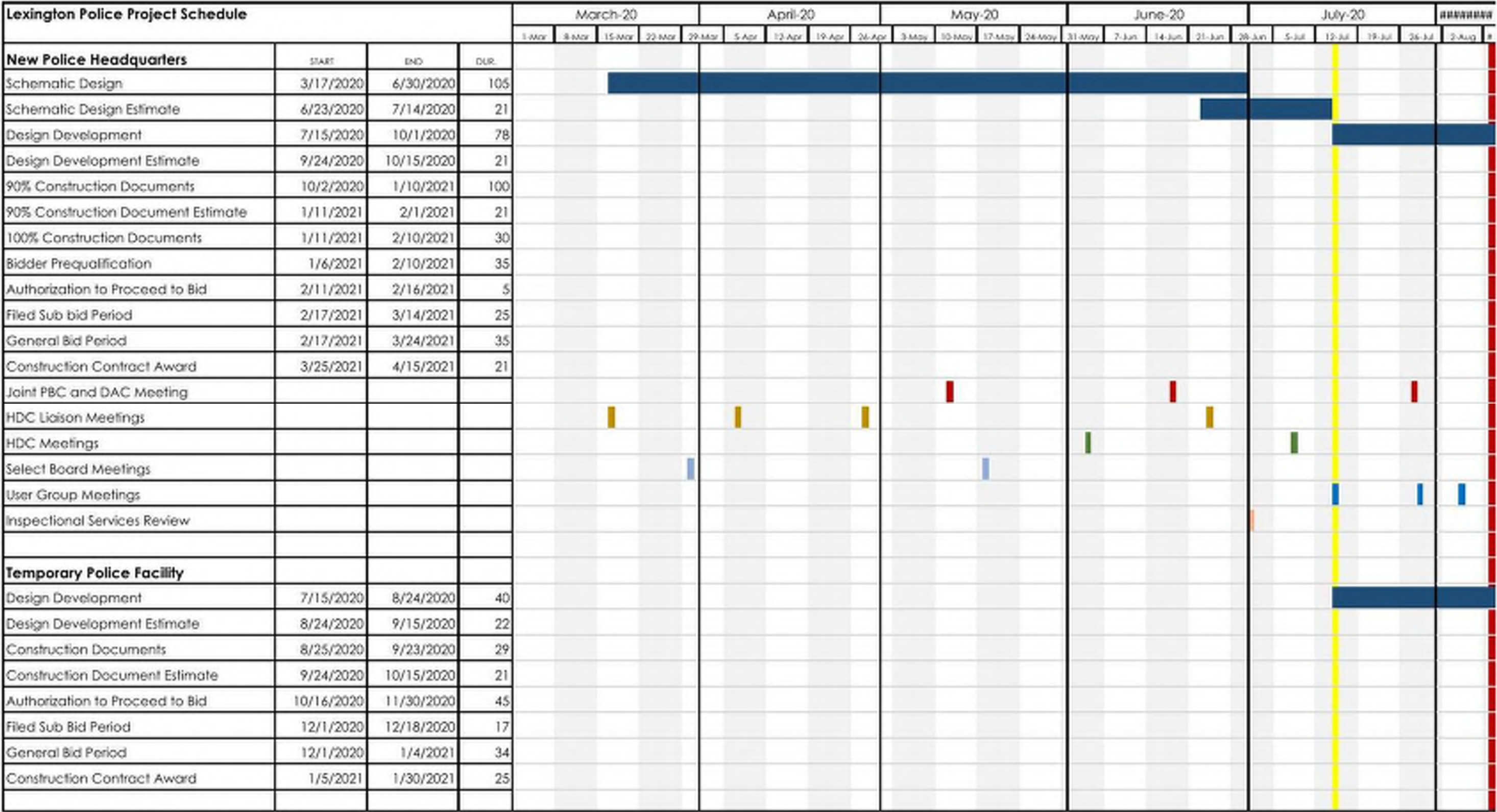
WHERE WE ARE GOING

- Schematic Design Completion – July 2020

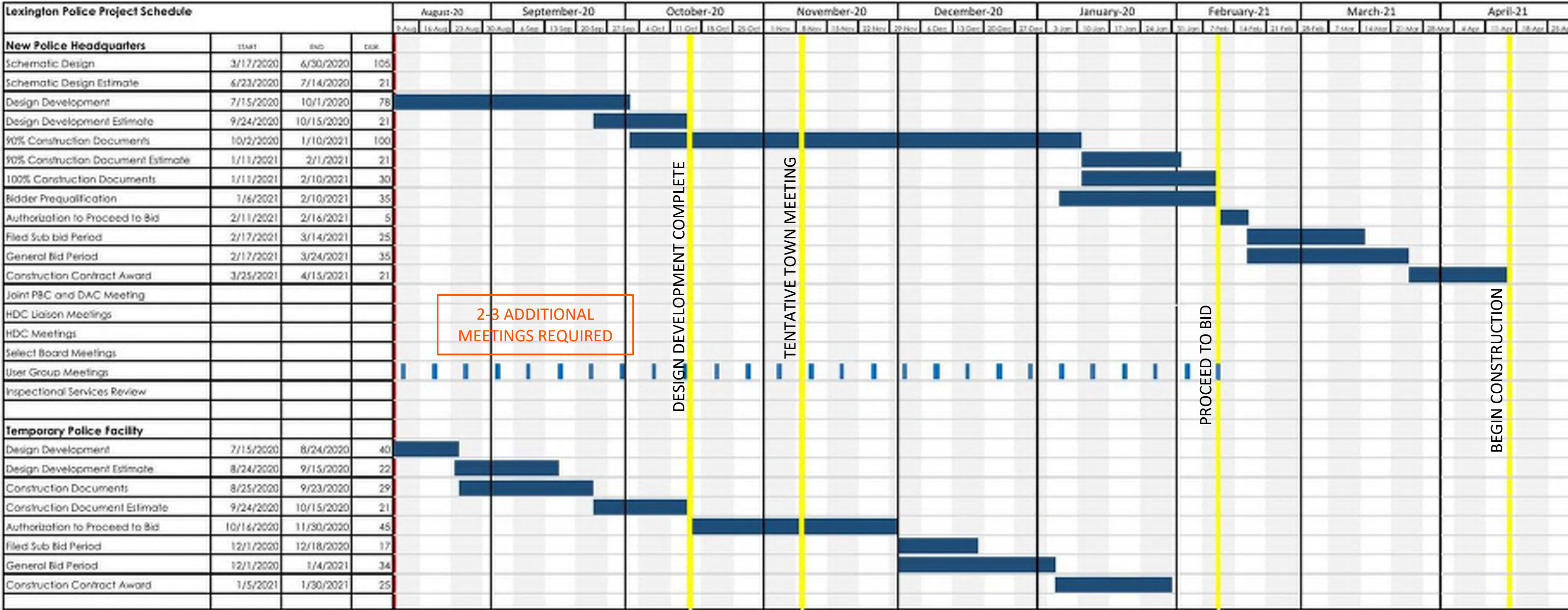
Tentative Schedule moving forward:

- Design Development complete September 2020
- Design Development Cost Estimate October 2020
- Approval by Town Meeting and Debt Override
- Construction Documents Estimate Early February 2021
- Construction Documents complete mid February 2021
- Construction Start April 2021

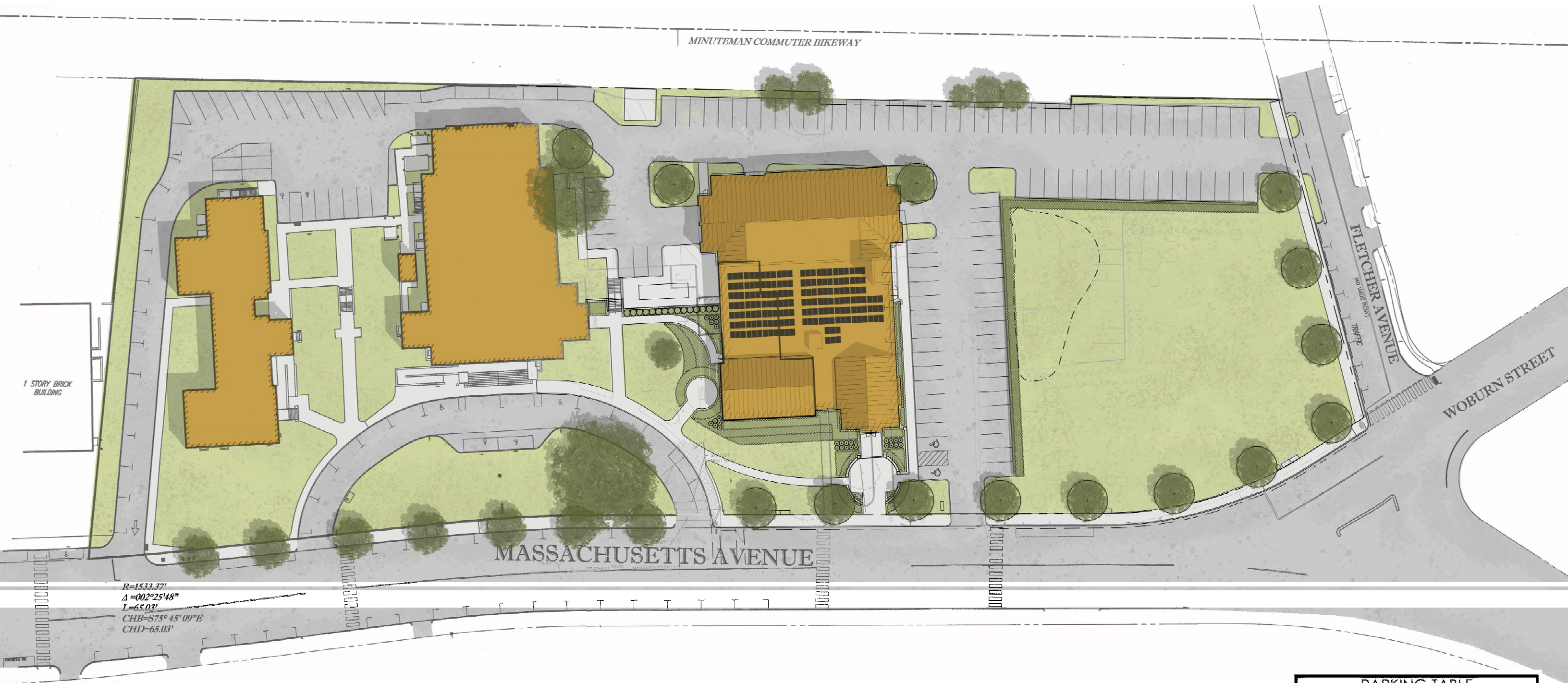
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PROJECT SCHEDULE – TO DATE



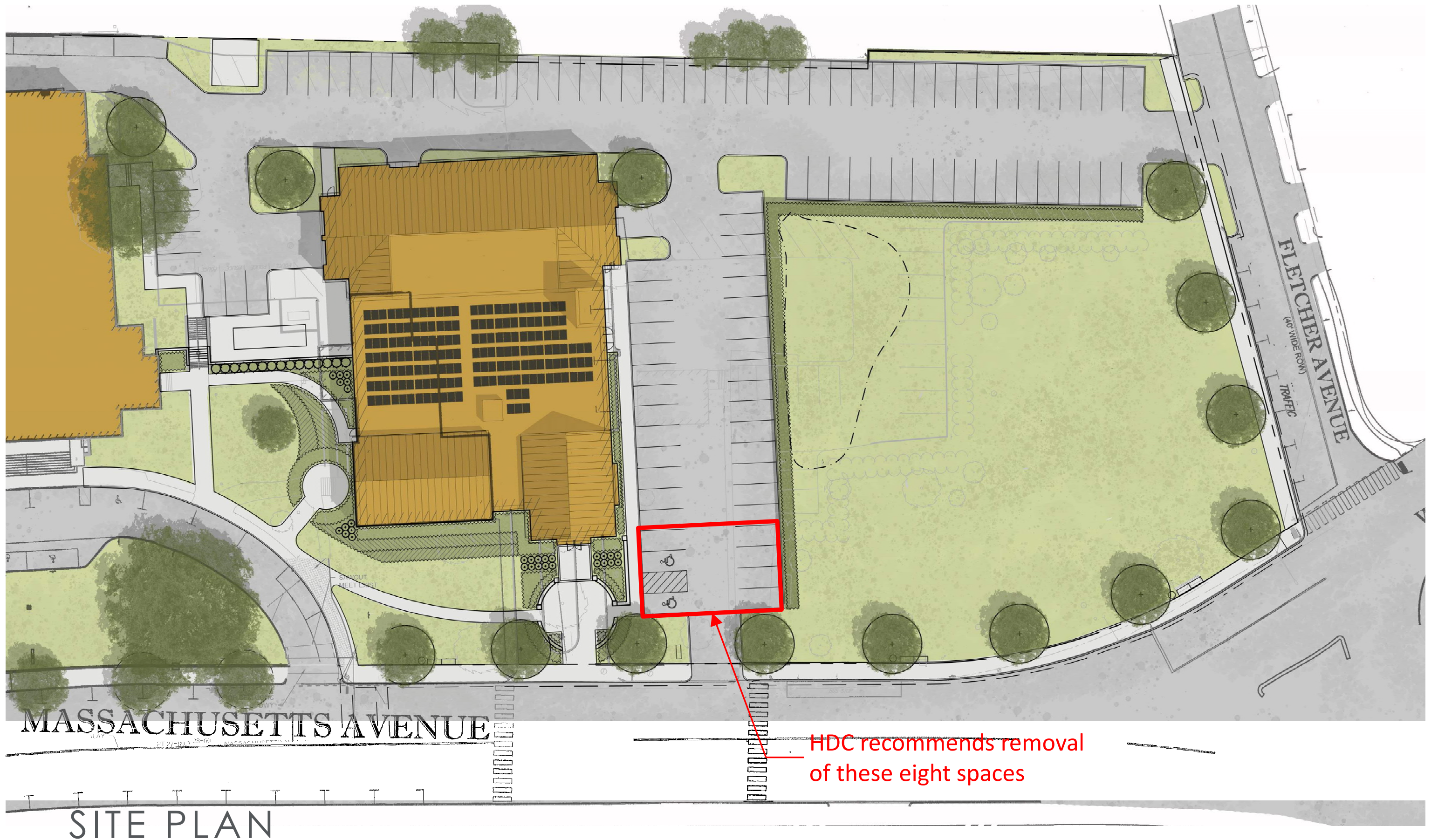
PROJECT SCHEDULE – MOVING FORWARD



CAMPUS PLAN

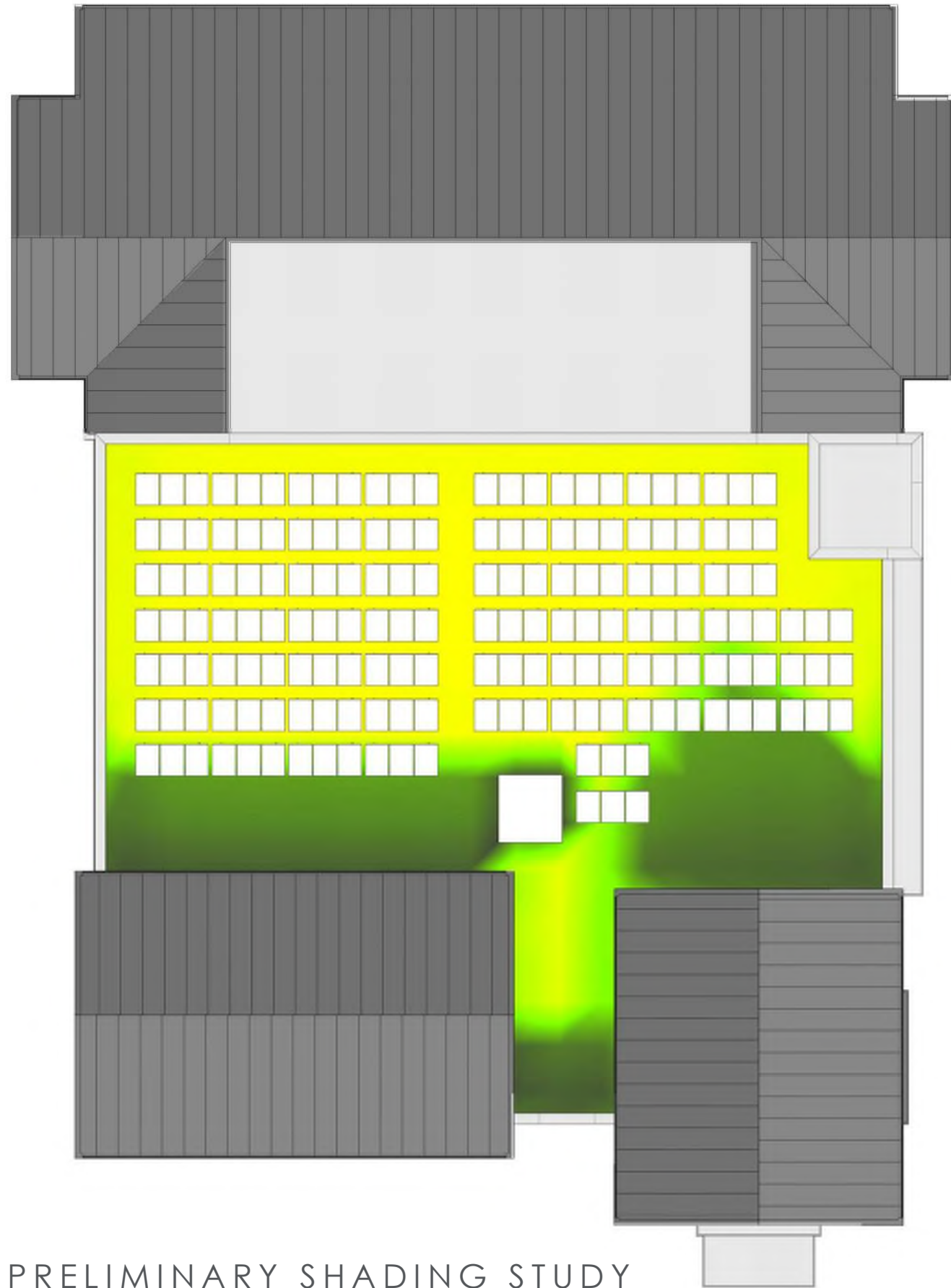
GREEN AREA TABLE	
Existing	29,900 s.f.
Proposed	34,500 s.f.

PARKING TABLE		
	Existing	Proposed
Accessible	4	4
Van	2	2
Regular	165	156
Garage	0	9
Total	171	171









ROOF PLAN WITH PRELIMINARY SHADING STUDY



CONTEXTUAL ELEMENTS

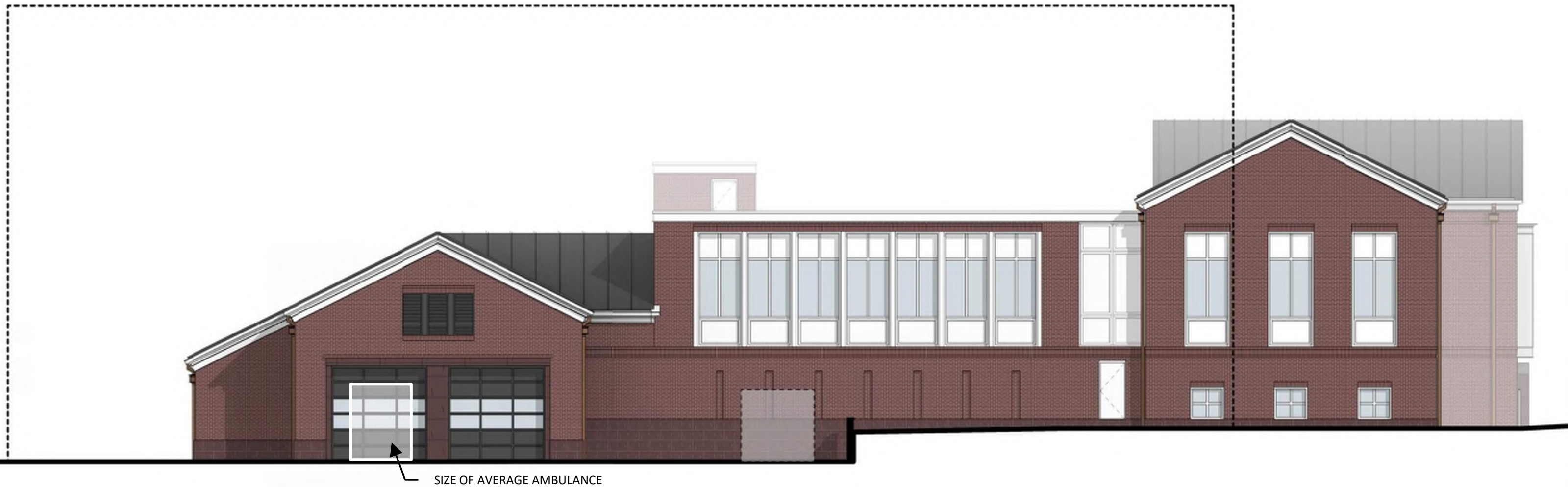


SOUTH ELEVATION

CARY MEMORIAL BUILDING BEYOND



EAST ELEVATION



WEST ELEVATION



NORTH ELEVATION





INTEGRATED DESIGN

- Conceptual energy modeling and initial Life Cycle Cost Analysis have been completed and the PBC/Sustainable Lexington Committee offer the following recommendations:
 - All Electric Air Source Variable Refrigerant Flow (VRF) system
 - Energy Efficient and all Electric
 - PV rooftop ready, it's possible to generate 10% of estimated 355Kw load
 - Net Zero possible
- Solar feasibility study underway

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INTEGRATED DESIGN – LEED and Lexington Credits



LEED v4 for BD+C: New Construction and Major Renovation **MODIFIED**

With Lexington Requirements

Project Checklist

Y ? N

62	15	46	TOTALS	Possible Points:	110
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Certified: 40 to 49 points Silver: 50 to 59 points Gold: 60 to 79 points Platinum: 80 to 110

Lexington minimum target range is 50-59 points

- LEED Silver – currently tracking enough points to achieve gold. The PBC and Sustainable Lexington Committee have recommended that the project should be certifiable, but not certified with USGBC.
- All Lexington credits have been achieved.

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INTEGRATED DESIGN - RED LIST

Objective: *To maximize the health and well-being of the building occupants of the proposed Police Station project.*

- Tecton and New Ecology have begun working through the Red to Green database to identify Red List free products for use on the project for CSI Divisions 4 - masonry, 7 – thermal envelope and sealants, 9- finishes and 12 - furnishing.
- This includes the identification of “equals” for compliance with Public Bidding requirements.

01	ALKYLPHENOLS	07	CHLOROFLUOROCARBONS (CFCS) AND HYDROCHLOROFLUOROCARBONS (HCFCs)	12	HALOGENATED FLAME RETARDANTS (HFRS)	18	POLYVINYL CHLORIDE (PVC)
02	ASBESTOS			13	LEAD (ADDED)	19	POLYVINYLIDENE CHLORIDE (PVDC)
03	BISPHENOL A (BPA)	08	CHLOROPRENE (NEOPRENE)	14	MERCURY	20	SHORT CHAIN CHLORINATED PARAFFINS
04	CADMIUM	09	CHROMIUM VI	15	POLYCHLORINATED BIPHENYLS (PCBS)	21	VOLATILE ORGANIC COMPOUNDS (VOCs) IN WET APPLIED PRODUCTS
05	CHLOROBENZENES	10	CHLORINATED POLYVINYL CHLORIDE (CPVC)	16	PERFLUORINATED COMPOUNDS (PFCS)		SPHENOL
06	CHLORINATED POLYETHYLENE AND CHLOROSULFONATED POLYETHYLENE	11	FORMALDEHYDE (ADDED)	17	PHthalATES	22	WOOD TREATMENTS CONTAINING CREOSOTE, ARSENIC OR PENTACHLORO

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DESIGN FOR HEALTH

Dedicated Outdoor Air System

- does not re-circulate air within the building to help prevent spread of any airborne disease.
- Air is ducted directly from the outside to the occupied space and inversely air is then removed from the space and ducted directly outside.

Energy Recovery Option

- Energy recovery core rather than a more traditional energy recovery wheel.
- Energy wheels typically transfer 2-3% of air between the supply and exhaust air streams, energy cores only transfer about 0.5%.

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DESIGN FOR HEALTH

Increased Ventilation Rates

- Already a Lexington initiative is to increase ventilation rates to maintain lower CO2 levels within the building.
- This system will be capable of a 20% increase in ventilation above the code requirement.
- Operable windows

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SCHEMATIC DESIGN COST ESTIMATE

	ATM 2018		2018 Budget Escalated to Present		All New Mass. Ave. Concept July 2020	
	NEW POLICE	NEW + TEMP.	NEW POLICE	NEW + TEMP.	NEW POLICE	NEW + TEMP.
Facility Construction Costs	34,175 s.f.		34,175 s.f.		30,081 s.f.	
Construction	\$11,643,385	\$11,713,385	\$15,762,598	\$15,847,398	\$13,313,552	\$13,398,352
Relocate Hosmer House	\$1,100,000	\$1,100,000	\$0	\$0	\$0	\$0
Estimated net cost:	\$12,743,385	\$12,813,385	\$15,762,598	\$15,847,398	\$13,313,552	\$13,398,352
General Conditions/Requirements	10.0%	\$1,274,339	\$1,284,839	10.0%	\$1,576,300	\$1,589,000
Bonds & Insurance	2.5%	\$350,443	\$352,858	3.0%	\$520,200	\$523,100
Overhead & Profit	3.5%	\$502,886	\$505,788	4.0%	\$714,400	\$717,900
Design/Estimating Contingency	15.0%	\$2,230,658	\$2,243,531	10.0%	\$1,857,300	\$1,872,900
Escalation Allowance	18.0%	\$3,078,308	\$3,093,110	4.5%	\$919,400	\$934,900
		(Q2/17 to Q3/19)		(Q3/20 to Q3/21)		(Q3/20 to Q3/21)
Construction Contingency	10.0%	\$2,018,002	\$2,029,351	10.0%	\$2,135,000	\$2,148,500
Suggested Adjustments and Contingencies:						
Relocate Hosmer House	\$0	\$0	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000
Unsuitable Soils Allowance	\$0	\$0	LS \$500,000	\$500,000	LS \$500,000	\$500,000
Subtotal:	\$22,198,020	\$22,322,862	\$25,085,198	\$25,233,698	\$20,985,452	\$21,133,952
Project Development and Equipment Costs						
Designer Fees	\$1,775,842	\$1,785,829	\$1,775,842	\$1,787,742	\$1,775,842	\$1,787,742
Additional Fee					\$314,700	\$314,700
Traffic Engineering Design Fees	\$35,000	\$35,000	\$0	\$0	\$0	\$0
Interior Furnishings and Loose Equipment	\$300,000	\$305,000	\$300,000	\$305,000	\$300,000	\$305,000
Communications Equipment Allowance	\$650,000	\$715,000	\$650,000	\$715,000	\$650,000	\$715,000
Hazardous Materials Abatement Allowance	\$50,000	\$50,000	\$260,100	\$260,100	\$140,000	\$140,000
Hygienists Fees	\$10,000	\$10,000	\$50,000	\$50,000	\$50,000	\$50,000
Mass. Ave. Site Investigation	\$18,000	\$18,000	\$42,000	\$42,000	\$42,000	\$42,000
Geotech CA services allowance	\$0	\$0	\$40,000	\$40,000	\$40,000	\$40,000
Red List Designer Fees	\$0	\$0	\$35,000	\$35,000	\$35,000	\$35,000
FF&E Design Fees	\$0	\$0	\$35,000	\$35,000	\$35,000	\$35,000
Communications Equipment Consultant	\$0	\$0	\$105,000	\$105,000	\$105,000	\$105,000
OPM Fees	\$0	\$0	\$350,000	\$350,000	\$350,000	\$350,000
Building Commissioning	\$0	\$0	\$75,000	\$75,000	\$75,000	\$75,000
Envelope Commissioning	\$0	\$0	\$20,000	\$20,000	\$20,000	\$20,000
Materials Testing	\$30,000	\$30,000	\$65,000	\$65,000	\$65,000	\$65,000
Relocation Costs (by owner)	\$25,000	\$50,000	\$50,000	\$75,000	\$50,000	\$75,000
Bidding Expenses	\$10,000	\$17,500	\$10,000	\$17,500	\$10,000	\$17,500
Legal Fees (by owner)	\$5,000	\$10,000	\$5,000	\$10,000	\$5,000	\$10,000
Project Development Contingency	\$290,900	\$302,600	\$386,800	\$398,700	\$340,300	\$352,200
	\$3,199,742	\$3,328,929	\$4,254,742	\$4,386,042	\$4,402,842	\$4,534,142
Total Opinion of Probable Project Costs:	\$25,397,762	\$25,651,791	\$29,339,940	\$29,619,740	\$25,388,294	\$25,668,094



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